

**401 KAR 53:010. Ambient air quality standards.**

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET  
Department for Environmental Protection  
Division for Air Quality

Relates to: KRS 224.320, 224.330, 224.340

Pursuant to: KRS 224.033

Necessity and Function: KRS 224.10-100 requires the Cabinet for Natural Resources and Environmental Protection to prescribe regulations for the prevention, abatement, and control of air pollution. This regulation is to fix ambient air quality standards necessary for the protection of the public health, the general welfare, and the property and people in this Commonwealth.

**Section 1. Ambient air quality standards.** The primary and secondary ambient air quality standards for sulfur oxides, particulate matter, carbon monoxide, ozone, hydrocarbons, nitrogen dioxide, lead, hydrogen sulfide, gaseous fluorides, total fluorides, and odors are specified in Appendix A of this regulation. Measurements will be by methods specified in Section 2.

**Section 2. Methods of Measurement.** For those air contaminants for which there are state ambient air quality standards that are the same as the national ambient air quality standards, measurements shall be made according to reference methods, or their equivalent methods. For other air contaminants for which there are state ambient air quality standards, measurements shall be made according to methods as prescribed by the department. The frequency of measurements for all air contaminants shall be prescribed by the department.

**Section 3.** Within sixty (60) days of promulgation or revision of any ambient air quality standard by the U.S. Environmental Protection Agency, the department shall initiate proceedings to promulgate or review this regulation in conformance with the federal ambient air quality standards.

Effective date: April 14, 1988

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APPENDIX A TO 401 KAR 53:010  
 AMBIENT AIR QUALITY STANDARDS

The following air contaminant concentrations shall apply at any single point location:

CONTAMINANT	PRIMARY STANDARD	SECONDARY STANDARD
Sulfur Oxides (Sulfur Dioxide) - $\text{ug}/\text{m}^3$		
Annual Arithmetic Mean, not to exceed	80 (0.03 ppm)	
Maximum Twenty-four-hour average	365 (0.14 ppm) *	
Maximum Three-hour average		
1300 (0.5 ppm) *		
Particulate Matter, measured as $\text{PM}_{10}$ - $\text{ug}/\text{m}^3$		
Annual Geometric Mean, not to exceed	50 **	50 **
Maximum Twenty-four-hour average	150 +	150 +
Carbon Monoxide - $\text{mg}/\text{m}^3$		
Maximum Eight-hour average	10 (9 ppm) *	Same as
prim.		
Maximum One-hour average	40 (35 ppm) *	Same as
prim.		
Ozone - $\text{ug}/\text{m}^3$		
Maximum [One-hour] average	<u>235 (0.12 ppm) ++</u>	Same as
prim.		
Nitrogen Dioxide - $\text{ug}/\text{m}^3$		
Annual Arithmetic Mean, not to exceed	100 (0.05 ppm)	Same as
prim.		
Lead - $\text{ug}/\text{m}^3$		
Maximum Arithmetic Mean averaged over		
a calendar quarter	1.5	Same as
prim.		
Hydrogen Sulfide - $\text{ug}/\text{m}^3$		
Maximum One-hour average		14 (0.01
ppm) *		
Gaseous Fluorides - (expressed as HF) - $\text{ug}/\text{m}^3$		
Annual Arithmetic Mean, not to exceed	400 (0.05 ppm)	
Maximum One-month average		0.5 (0.6 ppb) *
Maximum One-week average		
0.8 (0.97 ppb) *		
Maximum Twenty-four hour average	800 (1.0 ppm) *	
2.86 (3.5 ppb) *		
Maximum Twelve-hour average		
3.68 (4.5 ppb) *		
Total Fluorides - ppm		
Dry weight basis (as fluoride ion)		
in and on forage for consumption by		
grazing ruminants. The following		
concentrations are not to be exceeded:		
Average concentration of monthly samples		
over growing season		
(not to exceed 6 consecutive months)		40 ppm (w/w)
Two-Month average		60 ppm (w/w)

One-Month average

80ppm(w/w)

Odors: At any time when 1 volume unit of ambient air is mixed with 7 volume units of odorless air, the mixture must have no detectable odor.

Footnotes:

- \* This average is not to be exceeded more than once per year.
- \*\* This standard is attained when the expected annual arithmetic mean concentration, as determined in accordance with Appendix K to 40 CFR 50, is less than or equal to fifty (50) ug/m<sup>3</sup>.
- + The standard is attained when the expected number of days per calendar year with a twenty-four (24) hour average concentration above 150 ug/m<sup>3</sup>, as determined in accordance with Appendix K of 40 CFR 50, is equal to or less than one (1).
- ++ The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm (ug/m<sup>3</sup>) is equal to or less than one (1), as determined by Appendix H of 40 CFR 50.

THIS IS THE FEDERALLY APPROVED REGULATION AS OF FEBRUARY 7, 1990

	Date Submitted to EPA	Date Approved by EPA	Federal Register
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